FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

Technical Data Sheet

FUNCTIONAL PD-570

Medium Viscosity Cold Flow Improver and PPD for Biobased

APPLICATION:

FUNCTIONAL PD-570 is a polymer-based cold flow improver and PPD similar to polymethacrylate cold flow improvers **FUNCTIONAL PD-585** and **FUNCTIONAL PD-590. FUNCTIONAL PD-570** is intended for making low temperature eco-friendly and environmentally acceptable lubricants.

FUNCTIONAL PD-570 contains no mineral oil or aromatic carbon.

COMPOSITION:

FUNCTIONAL PD-570 is a polymer diluted in ester.

Typical Properties	
Flash Point (ASTM D92, COC)	>200°C / 392°F
Specific Gravity	0.97 g/mL
Pounds Per Gallon	8.1 – 8.2
Color (ASTM D1500)	Orange, ≤ 3.5
Typical Kinematic Viscosity (ASTM D445)	400 cSt @ 40°C
Renewable Content, wt%	>90% Approx.

TREATMENT LEVEL:

0.5 or 1.0wt% **FUNCTIONAL PD-570** is recommended to reduce the pour point of vegetable and fatty triglyceride based oils. Treat rate and performance is comparable to polymethacrylate-based technology though typically 3°C warmer in pour point. Exact performance depends on the total formulation including viscosity modifiers, base stock, and additive packages.

Benchmarking Pour Point Performance of **FUNCTIONAL PD-570** vs. **PD-585 and PD-590**

	Canola Oil		Soybean Oil	
Treat Rate	PD-570	PD-585 / PD-590	PD-570	PD-585 / PD-590
0.0wt%	-24°C	-24°C	-12°C	-12°C
0.5wt%	-30°C	-33°C	-18°C	-21°C
1.0wt%	-30°C	-36°C	-18°C	-24°C

HANDLING:

Store in a cool, dry place. Avoid freezing conditions. If frozen, heat drum to 100-140°F (40-60°C) to thaw before use. **FUNCTIONAL PD-570** is a non-hazardous material.

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Functional Products, Inc. 8282 Bavaria Rd. Macedonia, Ohio 44056
Ph: 330.963.3060 Fax: 330.963.3322